mBridge

Building a multi CBDC platform for international payments

BIS Innovation Hub

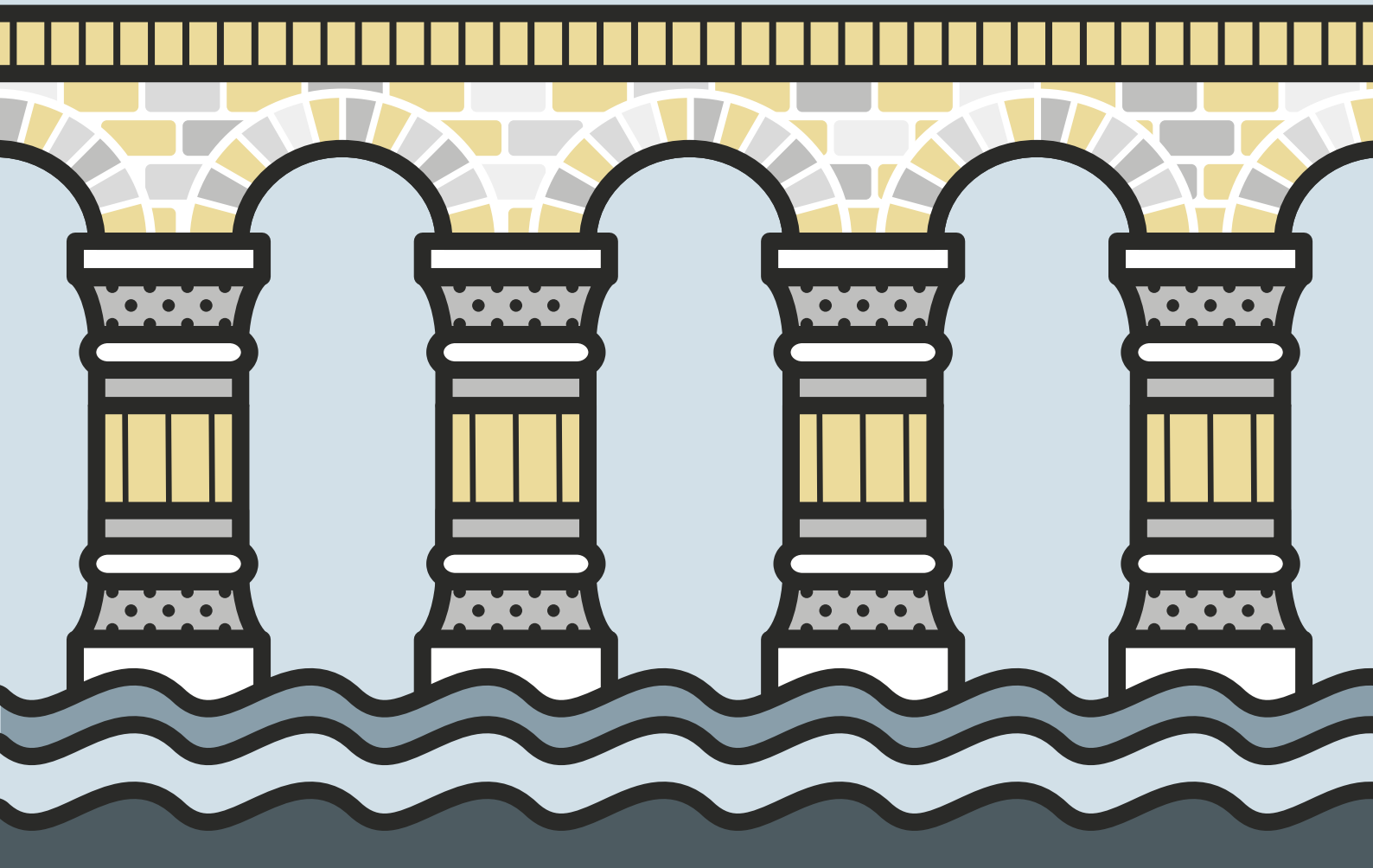
Participating Authorities

ธนาคารแห่งประเทศไทย
BANK OF THAILAND

مصرف الإمارات العربية المتحدة المركزي
CENTRAL BANK OF THE U.A.E.

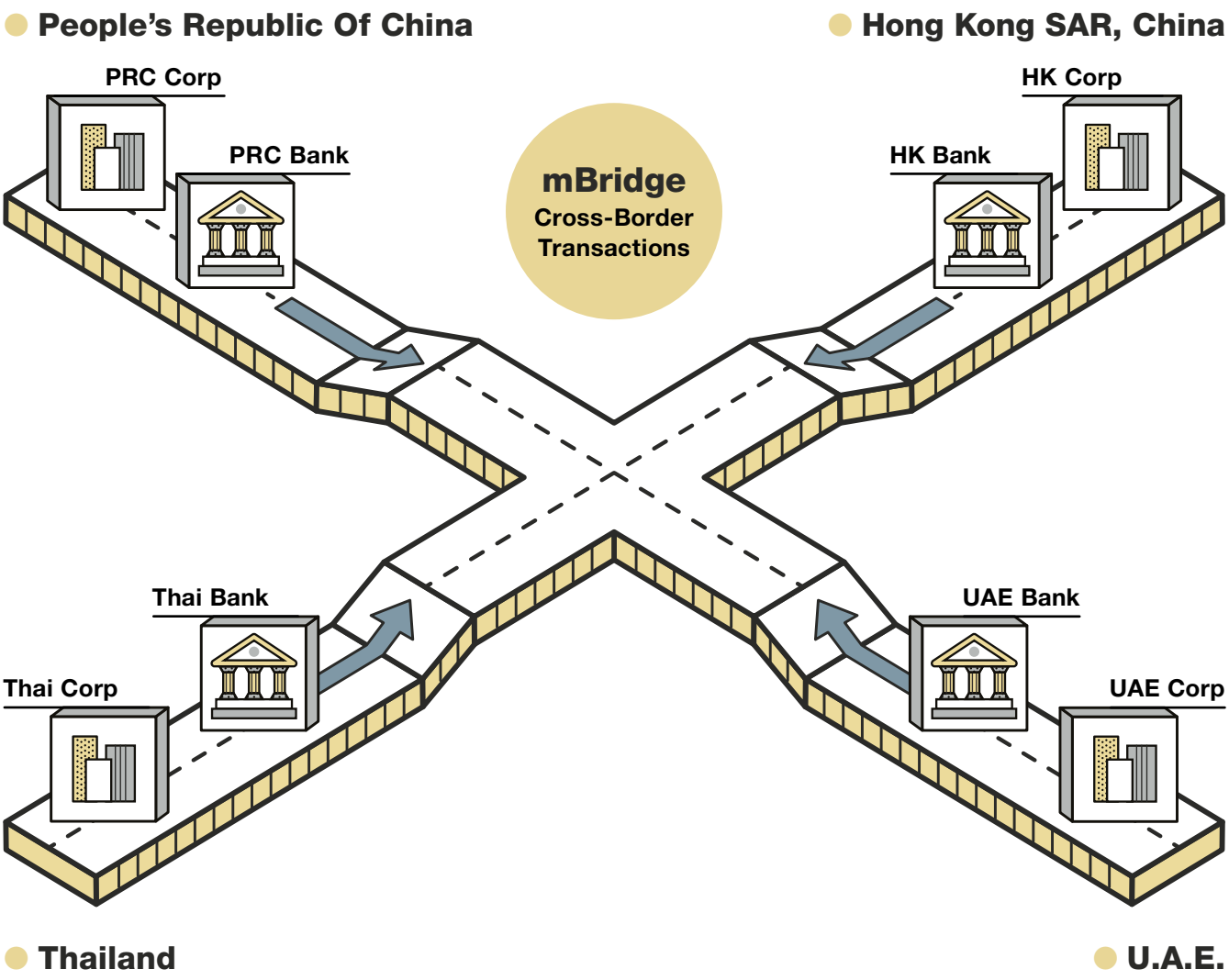
中国人民银行
数字货币研究所
DIGITAL CURRENCY INSTITUTE
PEOPLE'S BANK OF CHINA

HONG KONG MONETARY AUTHORITY
香港金融管理局



mBridge: Connecting Borders

The mBridge trial platform has validated the proposition that central bank digital currencies (CBDCs) can substantially increase the speed of cross-border payments from multiple days to near real-time, while also reducing cost. To continue building and testing the trial platform, the project team has collaborated extensively with the private sector to identify business use cases. This brochure summarises use cases, features trial transactions on international trade settlement, and outlines the future roadmap of the platform.



- Less fees
- Simpler operations
- No FX settlement risk
- Higher transparency
- Lower reporting burden

mBridge

Use Case Summary

To further test, improve and expand the functionality of the mBridge trial platform, a total of 22 private sector participants from four participating jurisdictions – Hong Kong SAR, People's Republic of China, Thailand and United Arab Emirates – have identified 15 potential business use cases.

Use Cases

International Trade Settlement

Through testing, the project team validated that the mBridge trial platform addresses the principle pain points of cross-border payments, including high cost, low speed, and operational complexities, while also ensuring that policy, regulatory compliance, and privacy mechanisms are appropriately integrated.

Project Participants

19 financial institutions,
2 banking associations and
1 exchange as shown below*

* Arranged in alphabetical order.

Use Case Summary (continued)

Use Cases	Project Participants		
Interoperability with digital trade finance platforms To illustrate how the efficiency of cross-border trade settlement can be enhanced when transacting on mBridge as well as between two inter-connected cross-border digital trade instrument platforms	Bank of China (Hong Kong) Limited		Link
Cross-boundary insurance payment between Mainland China and HKSAR Leveraging GBA Circular 2020-95 and mBridge to develop efficient cross-boundary insurance premium payment and claim payout in GBA	DBS Bank (Hong Kong) Limited		Link
Cross-border atomic settlement of a tokenised primary issuance Primary issuance of a tokenised corporate bond, settled atomically cross-currency and cross-border	Goldman Sachs (Asia) L.L.C.		Link
FX transactions leveraging mBridge infrastructure Provision of FX products with CBDC settlement utilising HKEX's infrastructure to facilitate FX transactions	Hong Kong Exchanges and Clearing Limited		Link
Cross-border commercial payments Provides real-time 24x7 cross-border payment with point-to-point settlement with finality **Programmable trade finance** Facilitates faster and feature-rich trade finance settlement via programmable CBDC **Wealth Connect settlement** Support atomic compliance checks and settlement for cross-boundary tokenised wealth management product	HSBC		Link

Use Case Summary (continued)

Use Cases	Project Participants		
Digital-native corporate bond issuance Provides a cross-chain DvP solution based on the CAST framework, embedding smart contracts for asset servicing and oracle solutions for notifications and reporting	Société Générale – FORGE		*Link*
Low Value Aggregation Services (LOVAS) LOVAS is a Layer-2 blockchain integrated with mBridge and domestic instant payment schemes, that can provide cross-border low-value payments aggregation and multi-lateral clearing in all four jurisdictions	Standard Chartered		*Link*
Multi-jurisdictional trades Deliver end-to-end streamlined solutions to support international trade settlement across multiple jurisdictions **Cross-border eCommerce** Connects local merchants, farmers and SSMEs to international markets through low-fee and near real-time payments **Supply chain financing** Enables banks to access verified data securely and provide better targeted financing for companies	The Thai Bankers' Assocation & The Association Of International Banks		*Link*
FX derivative (dual currency) Facilitates settlement of tokenised dual currency instruments, directly through mBridge-based payments **Wealth Management Connect (WMC)** Explores DLT/mBridge features that could facilitate closed-loop WMC payment requirements, and enable further enhancements	UBS		*Link*

International Trade Settlement

mBridge offers a unique opportunity to improve international trade settlement. Given that the total value of international trade transactions between the four participating jurisdictions amounted to more than USD$730 billion according to the World Bank^, the mBridge Steering Committee has given priority to this use case. Testing of sample trade settlement transactions across 11 industries has commenced on the trial platform.

Total amount tested on the mBridge trial platform*

THB ฿ **10** billion OR AED د.إ **1** billion OR RMB ¥ **2** billion OR HKD $ **2** billion

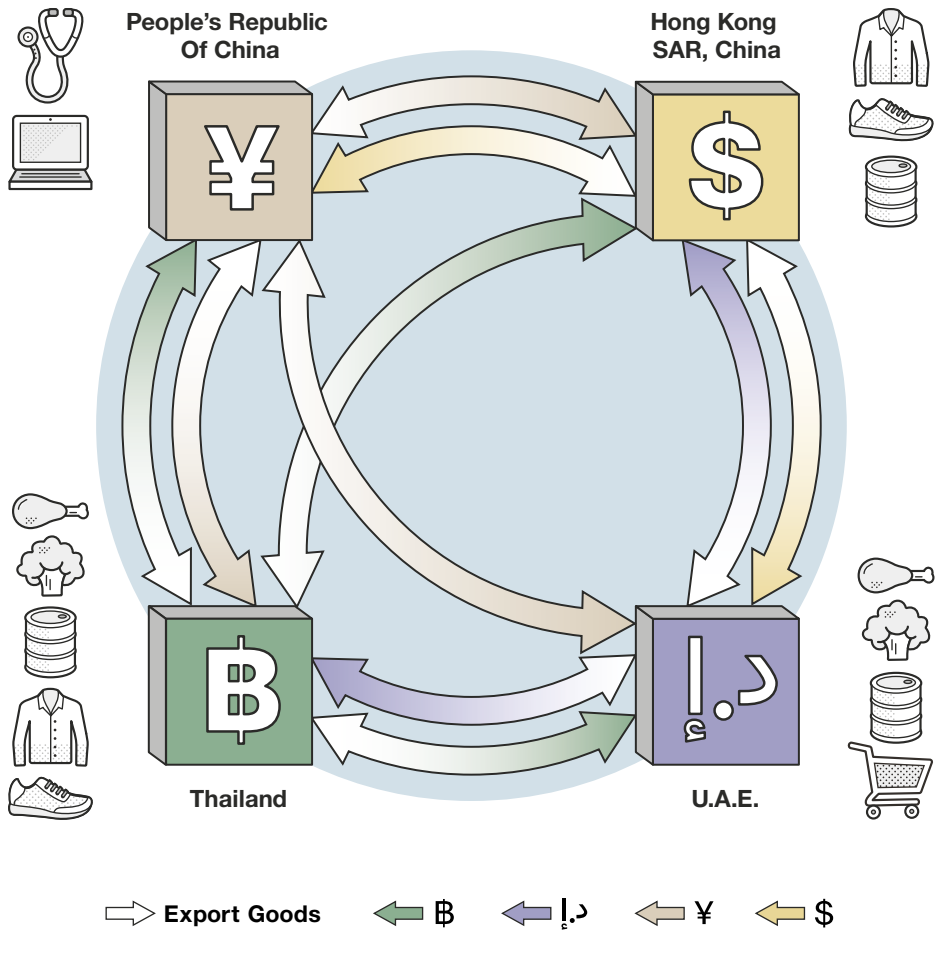
4

Jurisdictions involved

11

Unique industries

Including semi-conductors, medical equipment and apparel



^ Based on World Bank 2019 data. * Transaction values are rounded to the nearest billion.

mBridge Design Approach and Roadmap

The project is using an agile and iterative development approach, combined with a modular bricks design that enables participating jurisdictions to contribute functionality, connectivity and interoperability with existing and future systems. The ultimate goal is to achieve a minimum viable product and, eventually, production-ready system that can support the full process of international trade settlement and, in due course, other potential use cases summarised on pages 3, 4 and 5.

Iterative and agile process

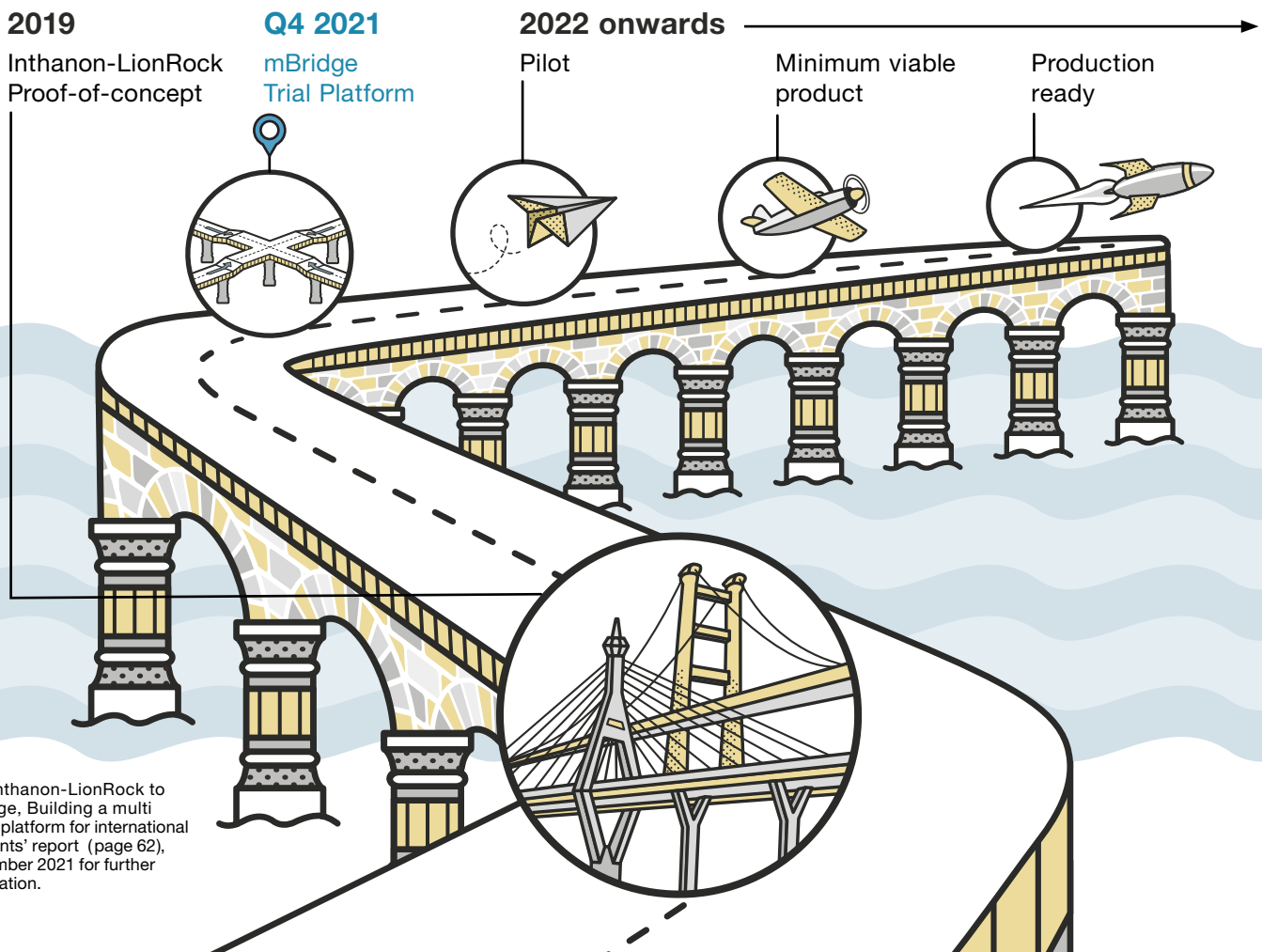
Propose → **Develop** → **Evaluate**

Implementation considerations

- Technology requirements
- Minimum Viable Legal Framework
- System requirements
- Legal governance
- Policy and regulatory compliance requirements
- Participation models
- Further trials of business use cases

Revise

International trade settlement work stream



* See 'Inthanon-LionRock to mBridge, Building a multi CBDC platform for international payments' report (page 62), September 2021 for further explanation.